

**Washington State Information Technology (IT) Standards & Protocol Directions**  
**Information Service Board (ISB)**

April 10, 2002

Internet Protocol Directions		Adoption Date
Portable data	Extensible Markup Language (XML)	December 1999
Portable logic	Server-side logic (Enterprise perspective of only limited, deliberate placement of code on the desktop)	December 1999
Trust, Security, Non-repudiation	Lowest level of authentication necessary for the application. In those cases where certificates are determined to be necessary, X.509 Version 3 is the standard for the certificate format	December 1999
State Internet Standards		
Accessing online directory services	Lightweight Directory Access Protocol (LDAP)	December 1999
Hyper Text Presentation	Hyper Text Markup Language (HTML) 4.01	April 2002
Internet/Intranet Services	<ul style="list-style-type: none"> <li>• Open Internet routing protocols. OSPF or IS-IS for internal routing and BGP-4 for external routing.</li> <li>• SNMP for network monitoring and management.</li> <li>• Internet multicast support: either DVMRP* or PIM*.</li> <li>• MPEG 1 &amp; 2 based compressed video and audio.</li> <li>• Internet based server infrastructure including Harvest style information caching.</li> <li>• Internet compatible listserv style mailing list facilities.</li> <li>• MBONE* and RSVP* oriented services for packetized multimedia applications.</li> <li>• ITU H.323* LAN interactive video.</li> </ul> <p><i>* An asterisk indicates an evolving standard that is recognized as an important technical direction for state network initiatives.</i></p>	May 1996
E-mail	Simple Mail Transport Protocol (SMTP), MIME, RCF-822	September 1992
Internetworking Standards	Transmission Control Protocol/ Internet Protocol (TCP/IP)	September 1992
Description	Standard	
Network Transport Infrastructure	SONET technology underlying core transport functions (OC-48, OC-12, OC-3, STS-1, DS-3, and DS-1 interfaces). Frame Relay technology for secondary transport (DS-1 and under).	May 1996 Revised December 1999
Videoconferencing and Circuit Switched Infrastructure	<ul style="list-style-type: none"> <li>• ITU H.320 and H.261 circuit switched interactive video.</li> <li>• ITU T.120 data collaboration.</li> <li>• ISDN PRI (National ISDN-2) and BRI (National ISDN-1) switched interfaces.</li> <li>• ISDN multirate (H0-384, H11-1536, NxDS0).</li> <li>• BONDING Mode 1 inverse multiplexing.</li> </ul>	May 1996
Video Distribution	<ul style="list-style-type: none"> <li>• MPEG-2 based compressed video and audio.</li> <li>• RS-250C compliant transport.</li> <li>• Video I/O directly compatible with analog component and serial digital component (D1) standards.</li> <li>• Adjustable compression and data rates to vary video quality from S-VHS to serial digital component (D1).</li> <li>• Closed-circuit, on-demand monitoring of all transported broadcast-quality MPEG video streams from multiple points.</li> <li>• Sufficient uplink power and low noise transmission to optimize link budgets for small to medium-sized antennas</li> </ul>	May 1996
Host level Computer Operating System	370/390 architecture MVS/CICS	June 2001
Distributed "client/server" operating systems	Windows, Windows NT, OS/2, UNIX POSIX compliance	June 2001
Data Base Systems	ANSI-89 SQL	June 2001
Telecommunications wiring for building pathways and state office buildings	Work area- UTP or Fiber Intra-building - Fiber	December 2000

*Earlier standards are under review and may be subject to revision by the Board.*